

titles of porphyry and serpentine, which he caused to be worked into small squares and triangles, and variously combined, thereby laying the foundation of this art, which formed the pavement of all the rich Italian churches. We have an interesting specimen in Westminster Abbey, referred to the year 1260.

The author, after tracing the history on to its decline, and giving some account of the caustic tiles, proceeded to state the circumstances which had of late years led to its partial revival. He also gave a detailed description of the process of manufacture employed by Messrs. Singer and Pether, and Messrs. Minton and Co., and concluded by urging on architects, and the public generally, the applicability of the manufacture to the purposes of decoration.

#### INSTITUTION OF CIVIL ENGINEERS.

ON the 2nd instant, the society met for the first time in the new theatre, and a paper by Mr. W. E. Newton was read, giving a description of the method employed by Mr. Herroo for the construction of the permanent way of the Philadelphia and Reading, and other railways in the United States. The method was a deviation both from the systems of the longitudinal and the transverse sleepers, crossing each other and spiked together at the intersections with wooden trenails or iron pins, according to circumstances, forming an extended platform, upon which their longitudinal bearers were laid, supporting bridge-shaped rails with wrought-iron chairs. The paper gave an account of several deviations from the general system, such as making the trellis-work of iron laid in bitumen, &c., and also a detail of the amount of traffic conveyed along the railway; whence it appeared, that within one year and five days from its being opened for general use, one million four hundred thousand tons of goods had been conveyed along it, without any prejudicial effect, and, in fact, with less wear and tear than was usual upon railways in the States. The cost of a single line of permanent way was about 850*l.* per mile. From the discussion that ensued, it appeared to be the opinion, that although the system might succeed in a country where timber abounded, it was inapplicable for English railways; and exceptions were taken to the general features of the construction for high speed, as the rails, which weighed only forty-four pounds per yard, and were of a bridge form, could not resist the impact of the wheels at great velocity: the junction of the diagonally laid sleepers would become loosened, and there would be too much deflection between the bearing points.

#### Correspondence.

##### URBAN BURIAL.

SIR,—I trust you will kindly give admission to a few very concise remarks from a former correspondent, whose experience, brought to bear on the above subject, has certainly been of use, and had a degree of usefulness felt, if not acknowledged, in conclusions drawn as to the general necessity of a novel and substantially ameliorated system.

For, while several have given sketches, or filled up representations of individual "horrors,"—in your pages alone has appeared an orderly systematic notice of London churchyard deficiencies, caused by the utter disproportion of room to population; also some suggestions for "joint parochial cemeteries;"—the two having been, at any rate, and claiming a humble merit, useful in the reception of any comprehensive general design.

Whilst the grand abuses have been sufficiently dilated upon, the grief to private Christian and human feeling, owing to the miserable and disturbed wretched places in which survivors are compelled to leave a loved corpse, has certainly not had the mention (though it may have been thought of), which might have been expected or wished.

The writer would be the last to forward any *Gallo-Mania*, but will submit that, as in *Abattoirs*, and extra urban markets, preventing a load of cruelty and insalubrity, seen and unknown, so in *sepulture*; Paris having in three grounds, full four hundred acres for one million inhabitants, and London (besides new ce-

metries, which are not compulsive) one hundred for two millions. They "manage these things better in France."—I am, Sir, &c., Feb. 8th, 1847. J. D. PARRY.

##### STATE OF THE TEMPLE CHURCH.

SIR,—I attended the morning service at the Temple Church yesterday, and was rather surprised and sorry, considering how lately it had been restored, to see the serious effect produced by the thrust of the groining, on the two opposite piers nearest the altar; especially the one immediately behind the pulpit, which appeared to me to sway from the perpendicular to the extent of at least 6 inches. I should feel obliged by your informing me whether this has been noticed, and whether any precautions are being taken to arrest the mischief. I am, Sir, &c., F. C.

P.S. For your satisfaction, I inclose my card.  
London, Feb. 8, 1847.

#### Miscellaneous.

CHALK FUEL.—The original paragraph, quoted from our columns by the press throughout the country, on the subject of the use of chalk, surrounded by coal, in producing intense heat at a small expense, has led to various experiments as well as considerable discussion, in the latter of which Dr. Murray, of Hull, has thought it advisable, — and very properly too, as a mere precaution, but not as a prohibition, — to object to the use of chalk for fuel from the liberation of carbonic acid gas during combustion. This, it is obvious, would form a fatal objection to its use in aboriginal huts where no proper means of ventilation are provided; but, as observed by the *Cambridge Advertiser*, which has ably advocated its use, or at least the trial of its quality, chalk would not be one jot or tittle more dangerous than charcoal, which, as our readers all know very well, can be, and constantly is, burned, without any danger, if proper precautions are observed.

METROPOLITAN SEWAGE MANURE COMPANY.—At a special meeting of this company, held last week to receive the draft of a bill for altering the line of their works, it appeared that it was proposed to construct an aqueduct in the parish of St. George, Hanover-square, near Skew-bridge, on the King's Scholars' Pond sewer, in the Vauxhall-bridge-road, and terminating at or near the Broadway in Hammer-smith, together with the necessary works by which the aqueduct or conduit would pass through the parishes of St. Luke Chelsea, St. Mary Abbot's Kensington, through Fulham and Hammer-smith. The tunnel here proposed was stated by their engineer to be preferable to iron, and would remove the opposition that existed to the erection of steam works in the metropolis. 30,000*l.* is the sum intended to be applied to the construction of the works.

PROSPECTS WORKS.—Advertisements have been issued during the past week for tenders for the erection of a large dwelling-house in Ipswich; and of new schools at Towlaw; for partly taking down and rebuilding the parish church of Walsingham; for the excavation for and construction of sewers in the parish of St. Luke's, Chelsea; for best Guernsey granite, flint, and pit ballast for St. James's, Clerkenwell; for the regular supply of cliff stone at Hull; for the working of limestone and other quarries; or hauling stone for the repair of roads in Herefordshire; and for masons', carpenters', plasterers', slaters', plumbers', emitters', glaziers' and painters' works for three years at the fortifications, barracks, and other buildings at Edinburgh Castle, Leith Fort, Piershill, Queensberry, Greenlaw, and Blackness Castle.

FRENCH PLATE-GLASS.—We have lately seen specimens of French plate-glass, at the Soho warehouse, in Soho-square, of great brilliancy and beautiful colour. The price is about the same as that of English glass. We are not anxious to recommend foreign productions over those of our own country, but as our plate-glass manufacturers show little desire to improve, or to let the public have all the advantages which the reduction of duty should bring, a little competition will perhaps be serviceable. Plate-glass ought to be cheaper in England than it is.

MR. KEANE DRAWS, ARCHITECT.—This gentleman, who, in connection with Sir Thomas Deane, his brother, has executed many works in Ireland which are well spoken of, expired in the prime of life, on the 30th ultimo. The *Cork Examiner* says, "Architecture, in the South of Ireland, has lost in him one of her most gifted exponents, one of her most enthusiastic upholders. His sorrowing friends justly attribute his death, in the maturity of manhood, to that spirit of zeal and unwearied devotion with which he toiled at his profession—wasting those precious hours that exhausted nature requires for her restoration, in incessant toil." The bow should not be always bent.

COMPETITION.—Plans have been called for, by advertisement in the current newspapers, for a Fever Hospital at Bedford.

#### MEETINGS OF SCIENTIFIC BODIES

During the coming Week.

MONDAY, Feb. 15.—Statistical Society, 12, 94, James's-square, 8 P.M.  
TUESDAY, 16th.—Institute of Civil Engineers, 23, Great George-street, 8 P.M.  
WEDNESDAY, 17th.—Society of Arts, Adelphi, 2 P.M.; Association of Architectural Draughtsmen, 33, Southampton-street.  
THURSDAY, 18th.—Royal Society, Somerset House, 8 P.M.; Society of Antiquaries, Somerset House, 8 P.M.

#### TO CORRESPONDENTS.

"Water Wheels."—A correspondent asks:—"What power of water is necessary to carry a wheel for grinding corn and threshing, &c. from four to six-horse power; and the fall necessary to obtain a sufficient amount of water for a breast or overshot wheel?"  
"L. J. K."—Yes. Ask for the last edition.  
"Veritas."—We will examine the work in question. We have a different account of it from another quarter.  
"Tides."—A correspondent wishes to know "where he can obtain titles that represent brick work, to cover vertical timber work."

"Packham Investment Company."—The name of the lowest contractor is Pettipiece, and the amount £1,903, not £1,943, as stated.

"Architectural Roofing Tiles."—We advise "T." to call on Mr. Hughes, at the Company's office, 158, Strand, who will give all information that may be required. They have a very good appearance.

"Kensington Workhouse Competition."—Correspondents must bide their time. We will review this matter presently. We insert one letter elsewhere.

Received,—"E. D." (Pimlico), "J. J.", "W. C." (Smeeth), "H. D. G.", "W. B." Report of Mr. Henry Austin, C.E., on the Sanitary Condition of the City of Worcester, with an Appendix; by Mr. Edwin Chadwick. "The Antiquary and Geologist's Companion;" by Mr. W. Downing Bruce, F.S.A. (Longman, 1847). "A Collection of Useful Tables, compiled from good authorities."

NOTE.—A number of correspondents must excuse us till next week.

ERRATA.—In letter respecting mill at Pilsley, p. 56, for one Mr. Burton, read our Mr. Burton.

NOTICE.—Covers for Volume IV. of *The Builders*, may be obtained at the Office, 3, York-street, price 2*s.*; or the publisher will send sets at 3*s.* each.—A few volumes for 1846 remain on sale, price 3*s.*

#### ADVERTISEMENTS.

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BE respectfully informed, that they can be supplied with IRON COLLARS, GIRDERS, RAIN-WATER PIPES, AREA and TERRACE GRATING, RAILS, WHEELS, CASTINGS, WATER, and IRON COPING, RAILROADS, TERRAZZAS, CONSERVATORIES, FANCY STAIRCASES, IRON DOORS, STOPS, &c. &c. &c.  
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